FEHILY TIMONEY

DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

Appendix 12.1

Hydrology Field Observations

Hydrology Field Observations Shancloon Wind Farm

Introduction

Field assessment of the existing hydrological environment of the proposed Shancloon Wind Farm was undertaken on 18th to 21st January 2022, and on 25th and 26th June 2024. Findings are summarised hereunder.

Overview

The proposed development lands are characterized as a mosaic of bog habitats (cutover and raised) and agricultural grassland with extensive land drainage, a portion of which is managed and maintained under the Arterial Drainage Act as part of the Corrib Headford scheme.

Figures 1 and 2 hereunder show typical drainage patterns encountered on site.

Land and bog drainage flow direction within the Site is towards the BLACK (SHRULE)_010 (Togher) river (see Figure 3).

Figure 1: Example of drainage network associated with cutover bog habitat

Figure 2: Example of drainage network associated with agricultural grasslands

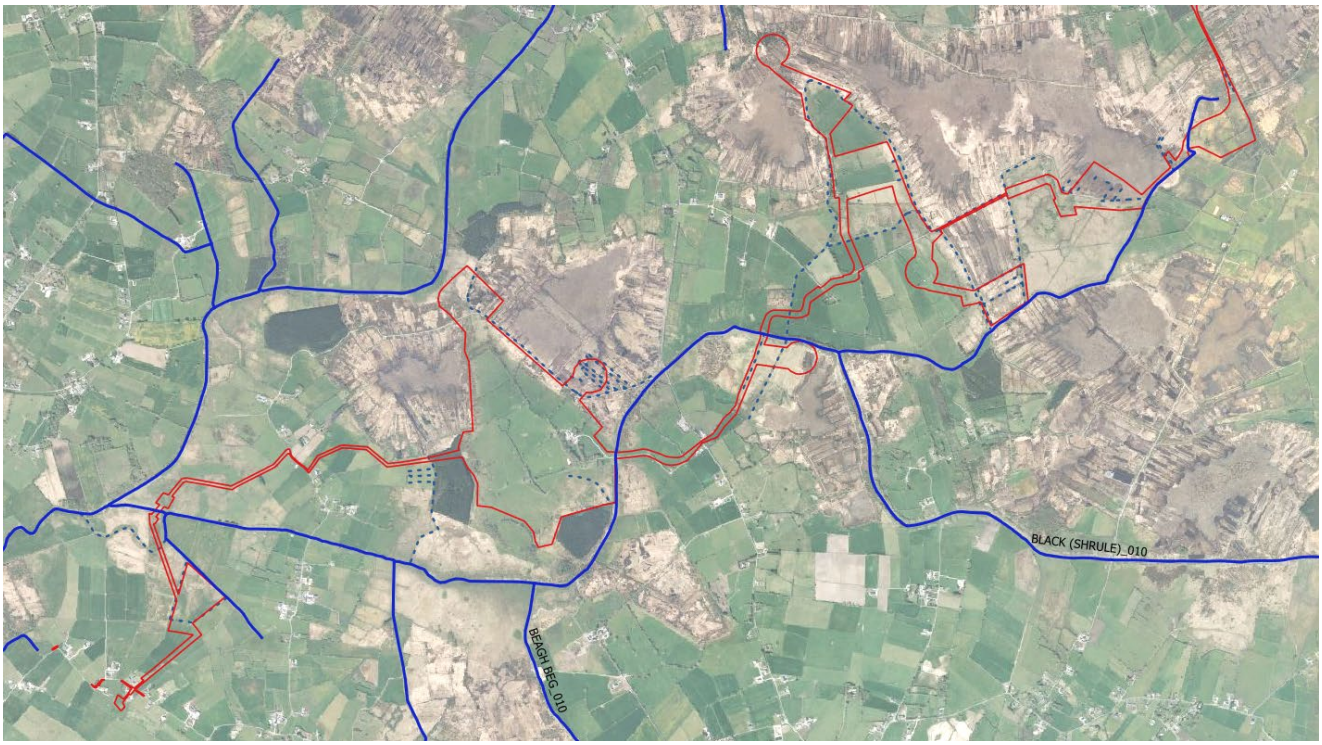
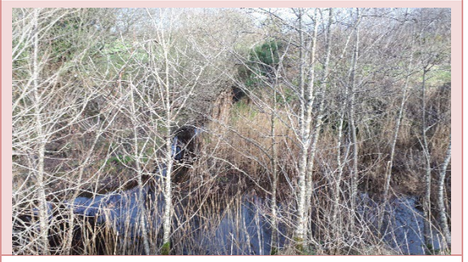


Figure 3: Existing land drainage on site

The proposed development will require the construction of one new bridge crossing and 14 new culvert crossings. The hydrological features at these locations are shown in Table 1.

Table 1: Hydrology at Drain / Watercourse crossings

Watercourse Crossing Ref	ITM Coordinates		Width at Base (m)	Width at top of bank (m)	Bank Height (m)	Depth of Water (m)	Type of Crossing	Site Photos
WC01	533089.53,	754307.53	8.83	17.28	3.84	0.74	18.5m slab length clear-span bridge on Togher River	
CV01	532044.8643	753994.955	2.8	3.5	4.0	3.2	Upgrade of existing piped culvert on land drain used for turbary access	
CV02	532051.1549	753526.061	0.9	1.0	0.2	0	piped culvert on land drain	

Watercourse Crossing Ref	ITM Coordinates		Width at Base (m)	Width at top of bank (m)	Bank Height (m)	Depth of Water (m)	Type of Crossing	Site Photos
CV03	533228.5454	754414.8103	1.42	2.8	1.8	0.62	Upgrade existing farm access piped culvert on land drain	
CV04	533543.7619	754815.8888	0.8	4.1	1.5	0.44	piped culvert on land drain	
CV05	533324.1022	755645.1961	0.46	1.4	1.33	0.52	piped culvert on land drain	

Watercourse Crossing Ref	ITM Coordinates		Width at Base (m)	Width at top of bank (m)	Bank Height (m)	Depth of Water (m)	Type of Crossing	Site Photos
CV06	533874.0242	754968.9821	1.14	3.64	1.53	0.48	Upgrade existing farm access piped culvert on land drain	
CV07	534245.0059	754535.1195	0.54	2.87	0.8	0.35	piped culvert on land drain	

Watercourse Crossing Ref	ITM Coordinates		Width at Base (m)	Width at top of bank (m)	Bank Height (m)	Depth of Water (m)	Type of Crossing	Site Photos
CV08	534419.3487	755076.0733	0.78	3.5	1.82	0.38	piped culvert on land drain	
CV09	534699.8902	755083.9407	0.51	0.51	0.1	0	piped culvert on land drain	

Watercourse Crossing Ref	ITM Coordinates		Width at Base (m)	Width at top of bank (m)	Bank Height (m)	Depth of Water (m)	Type of Crossing	Site Photos
CV10	534787.3713	755074.1173	1.2	1.2 – 4.5	0.2	0	piped culvert on land drain	
CV11	534764.4714	755050.5955	1.27	4.07	1.25	0.42	piped culvert – replace existing 600mm diameter culvert on land drain	

Watercourse Crossing Ref	ITM Coordinates		Width at Base (m)	Width at top of bank (m)	Bank Height (m)	Depth of Water (m)	Type of Crossing	Site Photos
CV12	534932.3086	755031.4635	0.6	4.17	1.2	0.34	piped culvert – upgrade of existing drain crossing on land drain	
CV13	535338.3095	755225.2358	2.2	4.53	1.97	0.75	piped culvert on land drain	Aerial Image 

Watercourse Crossing Ref	ITM Coordinates		Width at Base (m)	Width at top of bank (m)	Bank Height (m)	Depth of Water (m)	Type of Crossing	Site Photos
CV14	535417.3152	755371.7636	2.6	4.01	1.82	0.7	piped culvert on BLACK (SHRULE)_010 river	Aerial Image